The EPA's Environmental Technology Verification Program ETV

Greenhouse Gas Technology Center

An Environmental Technology Verification (ETV) Organization
Sponsored by the U.S. Environmental Protection Agency's Office of Research and Development

The GHG Center locates promising GHG mitigation technologies, subjects them to independent third-party performance testing, and provides performance results to the public free of charge. To date, the GHG Center has verified, or is in the process of verifying, 21 different environmental technologies. For a technology that performs well, ETV verification can help increase technology sales and further environmental protection. Technology performance verifications are accomplished using measurement and analysis methods that have been reviewed and approved by independent expert stakeholder panels.

The GHG Center, located in Research Triangle Park, NC, is a public/private partnership between the U.S. Environmental Protection Agency (EPA) and Southern Research Institute. The GHG Center operates under the U.S. EPA's Environmental Technology Verification (ETV) program. Verifications generally involve the measurement of energy conversion efficiency, air pollution emission rates (GHG, criteria, and other pollutants), other environmental impacts, electrical power quality, operational availability, cost, payback period, and other variables of interest to purchasers and other stakeholders.

Completed or In Process GHG Center Verifications

ANR Parametric Emissions Monitoring System (PEMS)
(4) Capstone Biogas-fired 30 kW Microturbines CHP
Capstone 60 kW Microturbine CHP
Compressor Emissions Packing
Compressor Seal Assist System (SAS)
Enviro Filtration & Treatment Diesel Fuel Cleaning System
EVRU™ Storage Tank Vapor Recovery System
GECO™ 3001 Air/Fuel Ratio Controller
Heat PlusPower™ Microturbine CHP
Ingersoll Rand PowerWorks 70 kW Microturbine CHP
ONSI Biogas-fired 200 kW Phosphoric Acid Fuel Cell CHP
Parallon® 75kW Turbogenerator Microturbine
Parallon® 75kW Turbogenerator Microturbine with CO Emissions Control
Phosphoric Acid Fuel Cell (PC25™)
Pin-Tech™ Bubble Tight <500 ppm Crude Oil Tank Relief Vent
PlugPower Residential PEM Fuel Cell
Quantum Leap Gas Dehydrator
SLE-1001 Refrigerent Sight Glass Monitor
Static-Pac™ Compressor Seals
Capstone Biogas-fired 30 kW Microturbine CHP
Martin Machinery Biogas-fired 100 kW Internal Combustion Engine CHP

The verification process is transparent and credible, and each verification is based on quality assured measurements that may challenge not only a technology's technical performance, but its economic and operational performance as well. The GHG Center strives to help technology purchasers make wise purchase decisions, vendors obtain independent confirmation of their technology's performance, and superior environmental technologies penetrate the market place.

Current GHG Center Technology Focus Areas

Advanced Electricity Production. Technologies associated with distributed electrical generation (e.g., microturbines, fuel cells, stirling engines), biomass power production, combined heat and power, and renewable energy.

Waste Management. Technologies that use landfill gas, provide low emission alternatives to managing municipal solid waste, or use animal and human waste to produce electric power and/or marketable products.

Oil and Gas Production and Distribution. Technologies which mitigate fugitive natural gas leaks, allow utilization of flare and waste gas, or provide other GHG reductions in the production, processing, transmission, and distribution sectors of the oil, natural gas, and organic chemical manufacturing industries.

GHG Monitoring. GHG monitoring technologies that are applicable to emission sources or ambient air.

Large Reciprocating Engines. Technologies that improve the energy efficiency and emissions of new and existing spark ignition and diesel engines used in a broad range of industrial and commercial applications.

Refrigeration. Technologies which reduce the release of refrigerants from commercial- and industrial-scale refrigeration equipment.

You can learn more about the GHG Center and download verification Test Plans, Statements, Reports, announcements, articles, and other publications from our Web site (**www.sri-rtp.com**) and from the ETV Web site (**www.epa.gov/etv**). You may also request additional information on verification testing and/or submit an Application For Testing of your technology.

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